

# History 3394

## Identity, Science and the New Technologies

Lecturer: Dr. Roberta Bivins

This course will explore the impact of new (and often controversial) medical, scientific and technological innovations on individual, social and national identities. Looking at the cases of reproductive technologies, organ transplantation, technologies of identification (from fingerprint databases to genetic paternity tests), and 'big science', we will ask if any or all of them have changed the ways in which people think of themselves, their families, and the cultures and nations in which they live.

**Aims:** To enable students to identify and assess the roles of new technologies in transforming notions of identity at the individual, familial and national levels.

**Objectives:** By the end of this course,

1. Students will be familiar with the social and political ramifications of:

*new reproductive technologies* including in vitro fertilization and egg-donation;

*genetic technologies* including DNA fingerprinting and genomic mapping;

*'big science' initiatives* such as the Human Genome Project and Space Race.

2. Students will be able to describe the relationship between such technologies and changes in notions of 'identity' at the individual, familial and national levels, and over time.

## Course Mechanics

### Contact information:

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Office Hours:           Tuesdays and Thursdays 2-3, or by appointment.

**All students** must meet with me during office hours or by appointment **at least once** during the semester, to discuss paper topics and seminar performance. Attendance will be taken, and participation will be assessed as part of the final grade. Students who miss more than three classes (unexcused) may be penalized on their final mark.

## Readings

Required readings are noted on this syllabus; most weeks will have several required selections, and between 40 and 70 pages of reading in total. Copies of all required readings are available from the Reserve Desk in the main library and/or are available for purchase from the University bookstore. Note that essays in edited collections **MAY** be listed under the editors' names at the Reserve Desk. I have also listed background reading for some weeks; these are optional. They are intended as a resource for you, both in keeping up with the class, and in writing your essays. Some weeks will also have a set of primary sources appended, for use in writing your essays, and/or for the benefit of postgraduate students in the class. If you do feel lost, or simply cannot keep up with the required reading, come and talk to me.

## Required Textbooks (Available from the University Bookstore)

- Simon Cole, *Suspect Identities: A History of Fingerprints and Criminal Identification* (Cambridge: Harvard, 2001).
- Kaja Finkler, *Experiencing the New Genetics: Family and kinship on the medical frontier*. (Philadelphia: UPenn, 2000).
- T.A. Heppenheimer, *Countdown: A History of Space Flight* (New York: John Wiley and Sons, 1997).
- Linda Hogle *Recovering the Nation's Body: Cultural Memory Medicine and the Politics of Redemption* (New Brunswick: Rutgers, 1999).
- Dan Kevles and Leroy Hood (eds) *The Code of Codes: Scientific and social issues in the Human Genome Project* (Cambridge: Harvard, 1992).

## Assessment

Students will be required to write **one 8 page essay** worth **40%** of the course mark. I will suggest several set topics for your essays in week 6. Students may also choose a topic of their own (**subject to my approval**), but such topics **MUST** address issues and material drawn from **TWO** of the course's three sections. In other words, I will expect these papers to be synthetic rather than simply descriptive. A first-class paper will have a

strong and original argument drawn from a variety of sources -- inclusive of, but not limited to material on the reading list. It will also be spell-checked, and grammatical! Students are encouraged to submit drafts. (These are not required, but can only raise your grade -- after all, I will be reading them and giving you feedback BEFORE you have to hand your paper in for a grade). For more about the paper and its assessment, see handout "Writing a strong essay." **This paper will be on the last Tuesday of class-- I will not accept any late papers (unless an extension has been requested and granted BEFORE the due date).** If you think you will have a problem getting the paper in on time, **COME SEE ME.**

**Coursework** will determine 60% of the final course mark. Students will be required to keep a

- **media journal** (worth **25%** of the final grade for this class, describing and interpreting at least **one** relevant news story **AND** **one** relevant NON-news reference to identity/technology issues (for example, a TV ad, technology-linked episode in a comedy or drama series, work of visual or performance art, or event in a movie or work of fiction, poetry, song, or documentary) for **EACH** week. See detailed instructions and samples on handout 1.
- **20%** of your final grade will depend on pop quizzes.
- **15%** of your final grade will be based on your class performance (attendance and participation in discussions), and timely submission of essay outline.

Class performance will be assessed through attendance, spoken contributions to the class, and ability to answer questions drawn from the readings if called upon.

The essay outline will not be graded, but will be returned with comments and suggestions for writing the final essay. Failure to submit your outline on time will lower the continuous assessment portion of your final mark.

### **University Policy:**

In accordance with the guidelines of the Americans with Disabilities Act, I will make every effort to reasonably accommodate students who request and require assistance. Please inform me of your needs as soon as possible.

Students are expected to produce and submit their own original work. Allegations of academic dishonesty (e.g. copying during exams, submitting or using the work of others without proper attribution) will be reported to the appropriate authorities. Students should consult the Student Handbook to review their responsibilities and rights regarding academic honesty. **STUDENT PAPERS MAY BE SCREENED FOR PLAGIARISM (AND AGAINST DATABASES OF PURCHASED ESSAYS), AND ALL PAPERS MUST**

**THEREFORE BE SUBMITTED ON DISK OR BY E-MAIL, AS WELL AS  
IN HARDCOPY.**

# **Syllabus**

## **Introduction**

### **Week 1.**

Lecture 1 (01/15/02) Technology and Identity, Technologies of Identity

#### *Background Reading:*

J.V . Pickstone, "Objects and objectives: notes on the material cultures of medicine," in Ghislaine Lawrence (ed.) *Technologies of modern medicine* (London: Science Museum, 1995): 13-24.

W. French Anderson, 'Human gene therapy: scientific and ethical considerations,' in Ruth Chadwick (ed.) *Ethics, Reproduction and Genetic Control*, 2nd Edition (London: Routledge, 1992): 147-163

## **Part I. Family and Technology**

### ***Theme 1. Technology and Familial Identities***

Lecture 2 (01/17/02) Science and the construction of 'motherhood'

#### *Required Readings:*

- Rima Apple 'Constructing mothers : scientific motherhood in the nineteenth and twentieth centuries' in Apple and Golden (eds), *Mothers and Motherhood*, 90-110
- 'Victorian values in a test tube' in Stanworth, *Reproductive technologies: gender, motherhood and medicine*, (Oxford: Polity press, 1987):151-173

### **Week 2**

Lecture 3 (01/22/02): Reproductive technologies and 'motherhood'

#### *Required Readings:*

- Michelle Stanworth, 'Reproductive technologies and the deconstruction of motherhood', in Stanworth, *Reproductive technologies: gender, motherhood and medicine*, (Oxford: Polity Press, 1987): 10-35.

#### *Background Reading:*

Hilary Rose, 'The Politics of Reproductive Science' in Stanworth, *Reproductive technologies: gender, motherhood and medicine*, (Oxford: Polity Press, 1987): 151-173.

Board for Social Responsibility, 'Marriage and the Family' in Ruth Chadwick (ed.) *Ethics, Reproduction and Genetic Control*, 2nd Edition (London: Routledge, 1992): 53-62.

Lecture 4 (01/24/02): Identifying (with?) the Fetus

#### *Required Readings:*

- Eugenia Georges, 'Fetal Ultrasound Imaging and the Production of Authoritative Knowledge in Greece', in Robbie Davis-Floyd and

Carolyn Sargent (eds), *Childbirth and Authoritative Knowledge: Cross-Cultural Perspectives* (Berkeley: Univ. of California Press, 1997): 91-112.

- Monica Casper, 'Working on and around human fetuses: the contested domain of fetal surgery', in Marc Berg and Annemarie Mol (eds) *Differences in Medicine Unraveling practices, Techniques, and Bodies* (Durham: Duke Univ. Press, 1998): 28-52.

### **Week 3**

Lecture 5 (01/29/02) NRTs: international comparisons

*Required Readings:*

- Margaret Lock, 'Perfecting society: reproductive technologies, genetic testing and the planned family in Japan', in Lock and Kaufert, *Pragmatic Women and Body Politics* (CUP, 1998): 206-239
- Helena Ragone, 'Inconstestable Motivations', in Franklin and Ragone, *Reproducing Reproduction: Kinship, Power and Technological Innovation* (UPenn Press, 1998):118-131

### **Theme 2: Genetics, heredity and kinship**

Lecture 6 (01/31/02): The (abridged!) history of kinship and heredity in America

*Required Readings:*

- Kaja Finkler *Experiencing the new genetics*, Chapter 3-4

### **Week 4**

Lecture 7 (02/05/02): Identifying as a 'patient'

*Required Readings:*

- Kaja Finkler *Experiencing the new genetics*, Chapter 5 **OR** 7
- Nancy Wexler, "Clairvoyance and caution" in Kevles and Hood, *Code of Codes*, 211-243.

Lecture 8(02/07/02): Genetics, technology and medicalization

*Required Readings:*

- Kaja Finkler *Experiencing the new genetics*, Chapters 8-9

## **Part II. Bodies, Cyborgs and the Self**

CASE STUDY Organ Transplantation in Germany and the US

### **Week 5**

Lecture 9 (02/12/02) Using the body, part 1

*Required Readings:*

Linda Hogle, *Recovering the nation's body*, pp. 95-99, Chapters 2-3

Lecture 10 (02/14/02) Using the body, part 2

*Required Readings:*

Linda Hogle, *Recovering the nation's body*, Chapter 4

## Week 6

Lecture 11 (02/19/02) Ethics and the useable body

*Required Readings:*

Linda Hogle, *Recovering the nation's body*, Chapter 5

Lecture 12 (02/21/02) Cyborgs and human sources

*Required Readings:*

Linda Hogle, *Recovering the nation's body*, Chapter 7 **OR** 8

## Week 7

Lecture 13 (02/26/02) Cross-cultural comparisons: Organ transplantation in Japan

*Required Readings:*

- E. Ohnuki-Tierney, "The Reduction of Personhood to Brain and Rationality: Japanese contestation of medical high technology." in Andrews and Cunningham, *Western Medicine as Contested Knowledge*, 212-240.

*Background Reading:*

Guttmann, RD. 'Technology clinical studies and control in the field of organ transplantation' *Journal of the History of Biology* 30:3 (1997): 367-79

Ilana Lowy, 'Tissue groups and cadaver kidney sharing: socio-cultural aspects of a medical controversy', *International Journal of Technology Assessment in Health Care*, 2, (1986): 195-218.

Lecture 14 (02/28/02) The transplanted hands

*Required Readings:*

Media Packet

## SPRING BREAK – MARCH 4-10

### Part III. Identity and Groups

*Theme 1 Identity and Technologies of Surveillance and Control*

#### Week 8

Lecture 15 (03/12/02) Myths and fingerprints

*Required Readings:*

- Simon Cole, *Suspect Identities*, Prologue, Chapter 3

Lecture 16 (03/14/02)

*Required Readings:*

- Simon Cole, *Suspect Identities*, Chapters 5-6

*Background Reading:*

Film *The Return of Martin Guerre*

#### Week 9

Lecture 17 (03/19/02) Identity, Privacy and Technology

*Required Readings:*

- Simon Cole, *Suspect Identities*, Chapters 10, 12

Lecture 18 (03/21/02)

*Required Readings:*

- Simon Cole, *Suspect Identities*, Epilogue
- Pamela Sankar, 'The proliferation and risks of government DNA databases', *American Journal of Public Health* March 1997, Vol 87, #3

*Background Reading:*

Peter Gill, Alec Jeffreys, David Werrett, 'Forensic Application of DNA 'Fingerprints'' *Nature*, Vol 318, Dec. 1985: 577-579

Martin Weiner, *Reconstructing the Criminal: Culture, Law and Policy in England, 1830-1914* (CUP. 1990).

## ***Theme 2 Technology and racial identity, technologies of racial identity***

### **Week 10**

Lecture 19 (03/26/02) Technology, Identity and Race

*Required Readings:*

- Melbourne Tapper, 'An "anthropathology" of the "American Negro": anthropology, genetics and the new racial sciences, 1940-52'. *Social History of Medicine*, 10 (1997): 263-289

**OR**

- Keith Wailoo, 'Genetic marker of segregation: sickle cell anaemia, thalassaemia, and racial ideology in American Medical Writing, 1920-1950', *History and philosophy of the life sciences* 18 no. 3 (1996): 305-320.

*Background Readings:*

Refer back to Cole, *Suspect Identities*, Chapter 3

Lecture 20 (03/28/02)

*Required Readings:*

- Panayiotis Ioannou, 'Thalassemia Prevention in Cyprus, Past Present and Future' in Ruth Chadwick et al *The Ethics of Genetic Screening* (Dordrecht: Kluwer, 1999): 55-67

## **Part IV. New Frontiers and National Identities**

### **Week 11**

Lecture 21 (04/02/02) Case 1: Nuclear Power

*Required Readings:*

- NO required reading.

Lecture 22 (04/04/02) The Space Race

*Required Readings:*

- T.A. Heppeneimer, *Countdown*, Chapter 5

## Week 12

Lecture 23 (04/09/02) The Space Race (con't)

*Required Readings:*

- T.A. Heppeneimer, *Countdown*, Chapter 7 (skim chapter 6 for additional info)

Lecture 24 (04/11/02) Movie: *The Dish*

*Required Readings:*

- T.A. Heppeneimer, *Countdown*, Chapter 9 **OR** 11, Chapter 12

## Week 13

Lecture 25 (04/16/02) History of the HGP

*Required Readings:*

- Dan Kevles, 'Out of Eugenics: The Historical Politics of the Human Genome' in Kevles and Hood, *Code of Codes*, 3-36

Lecture 26 (04/18/02) Images of the HGP

*Required Readings:*

- Jose Van Dijck, 'Biophoria: The Human Genome Project' in Van Dijck, *Imagination: Popular Images of Genetics*, (Macmillan Press, 1998): 119-145.

## Week 14.

Lecture 27 (04/23/02) Using the HGP

*Required Readings:*

- Ruth Schwartz Cowan, "Genetic Technology and Reproductive Choice: An Ethics for Autonomy" in Kevles and Hood, *Code of Codes*, 244-263
- Henry Greely, "Health Insurance, Employment Discrimination, and the Genetics Revolution" in Kevles and Hood, *Code of Codes*, 264-280

Lecture 28 (04/25/02)

*Required Readings:*

- Dan Kevles and Leroy Hood, "Reflections" in Kevles and Hood, *Code of Codes*, 300-328

*Background Reading:*

Dan Brock, 'The Human Genome Project and Human Identity' in Weir, Lawrence and Fales (eds) *Genes and Human Self-Knowledge: historical and philosophical reflections on modern genetics*. (U of Iowa Press, 1994)

Jose Van Dijck, 'Biophoria: The Human Genome Project' in Van Dijck, *Imagination: Popular Images of Genetics*, (Macmillan Press, 1998): 119-145.

## **Week 15**

Lecture 29 (04/30/02): Conclusions

Note new reading for adoption: Ellen Herman, "Families Made by Science: Arnold Gesell and the Technologies of Modern Child Adoption" *Isis*, 2001, 92: 684-715.